The Problem...

Throughout its history, Lake Elsinore has been subject to flooding or drying, depending on runoff amounts. The lake loses an average of 15,000 acre-feet* a year to evaporation, dropping the surface level more than 4.5 feet per year. In the last 75 years, average annual inflow to the lake has exceeded 15,000 acre-feet only 15 times. When the lake is low, fish have died and recreational use has stopped. The lake went dry in the 1960s. It flooded in 1980 and again in 1983, causing millions of dollars in damages. The lake nearly went dry in 1991, but the "March miracle" rains the following year raised the level more than six feet. El Niño conditions were responsible for the filling of the lake in 1993 and in 1995.

The Solution...

The Lake Elsinore Management Project was designed to help ease this "feast or famine" cycle. By restructuring the boundaries of the lake to prevent flooding and minimize evaporation, by enhancing wetlands, and by dampening the extremes of filling and drying, the lake management project provides important benefits:

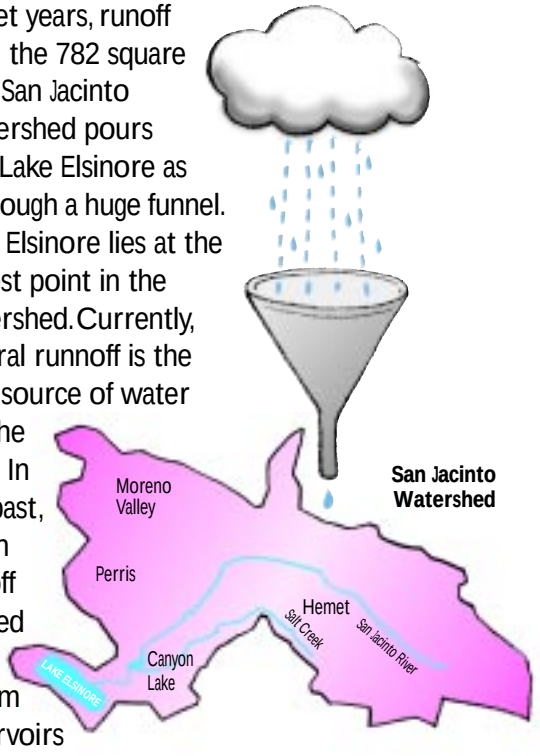
- Reduced evaporation loss
- Reduced flood damage
- Improved water quality
- Improved recreational lake use
- Enhanced fish & wildlife habitats

* An acre-foot is approximately 325,900 gallons.

Lake Elsinore

The end of the watershed

In wet years, runoff from the 782 square mile San Jacinto Watershed pours into Lake Elsinore as if through a huge funnel. Lake Elsinore lies at the lowest point in the watershed. Currently, natural runnoff is the only source of water for the lake. In the past, when runoff caused upstream reservoirs to spill, Lake Elsinore often filled, but rarely discharged. As the lake began to evaporate, salt concentrations would rise, affecting water quality. That changed in 1995, with completion of the Lake Elsinore Management Project. The project was designed to conserve water in dry years and improve water quality by enabling more frequent discharges from the lake during heavy runoff.



Elsinore Valley Municipal Water District

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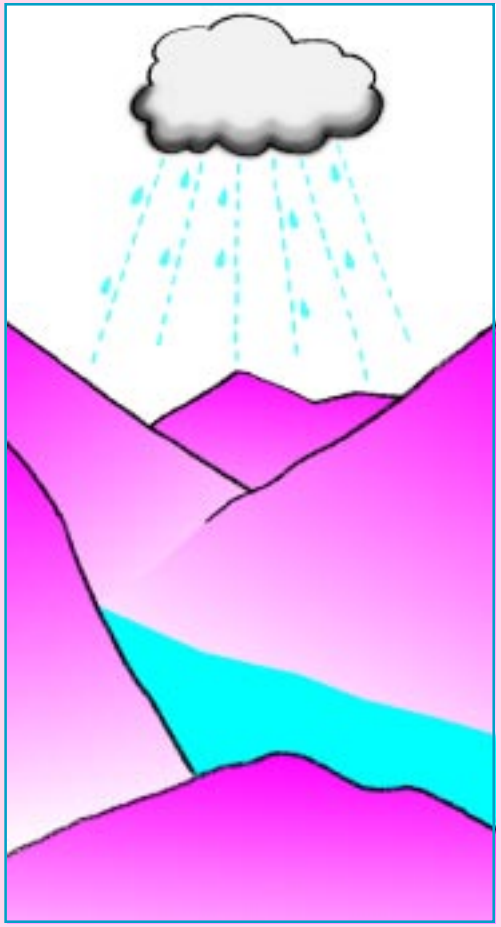
Lake Elsinore

What to expect during El Niño



The filling of Lake Elsinore last occurred in 1995 and could repeat in heavy runoff years. What to expect under normal conditions and during heavy storm flows is described below.

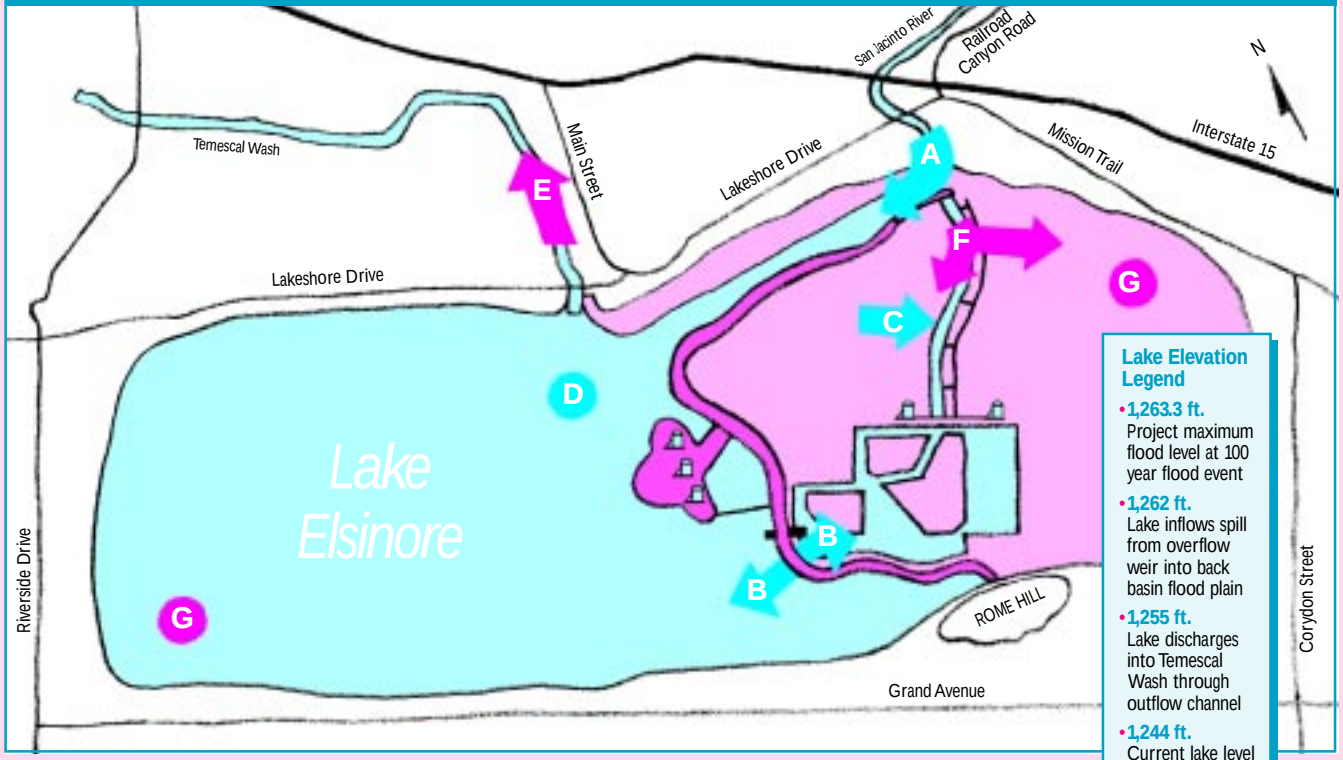
If the lake fills this year…

Predictions of wetter than normal Southern California rainfall due to El Niño conditions still hold through April of 1998. For this reason, EVMWD and other public agencies have prepared for the possibility of rising lake conditions. If Lake Elsinore begins to fill, the diagram at right shows critical elevations to watch as storm events unfold.

If the lake doesn't fill…

If the winter season results in below normal rainfall, which can also be caused by El Niño, the lake level will continue to decline. The levee helps conserve water in dry years by reducing evaporation, but supplemental water will be needed when the level drops below 1,240 feet. Groundwater provides our least expensive source of drinking water, yet there isn't enough to meet demand. For this reason, another source of makeup water for the lake will be needed. EVMWD is evaluating the feasibility of using safe, disinfected, tertiary Title 22 recycled water to supplement the lake in dry years, which could help keep the lake above 1,240 feet 10% to 20% longer.

How Lake Management Works–Normal vs. Storm Conditions



Lake Elevation Legend

- **1,263.3 ft.** Project maximum flood level at 100 year flood event
- **1,262 ft.** Lake inflows spill from overflow weir into back basin flood plain
- **1,255 ft.** Lake discharges into Temescal Wash through outflow channel
- **1,244 ft.** Current lake level as of January 1998
- **1,240 ft.** Lake Management optimized level
- **1,223 ft.** Lake bottom

The Lake Elsinore Management Project was designed to ease extreme flooding and evaporation loss in the lake. Features include an earthen levee, operations island, wells, overflow weir, lake-type inlet channel, and wetlands habitat.

Normal Operations

- **A** Natural runoff from the San Jacinto River reaches lake-type inlet connection.
- **B** Water circulates between lake and wetlands through 48 inch gated conduit in levee.
- **C** Lake or well water supplied to wetlands and riparian habitat for habitat maintenance.
- **D** Below 1,240 feet supplemental water needed to replace evaporation losses from lake.

Heavy Storm Flow Conditions

- **A** Watershed runoff to San Jacinto River flows to inlet connection and Lake Elsinore.
- **E** Outflow channel spills to Temescal Wash when Lake Elsinore exceeds 1,255 feet.
- **F** Overflow weir spills into floodplain when lake exceeds 1,262 feet.
- **G** In 100 year flood event, maximum elevation is 1,263.3 feet — combined back basin and lake storage is 150,000 acre-feet.